

Data sheet for three-phase Squirrel-Cage-Motors SIMOTICS



Motor type : 1AV3094A

SIMOTICS GP - 90 L - IM B3 - 2p

| | | |
|------------------|-----------------|-----------|
| Client order no. | Item-No. | Offer no. |
| Order no. | Consignment no. | Project |

Remarks

Electrical data

Safe Area

| U [V] | Δ / Y | f [Hz] | P [kW] | P [hp] | I [A] | n [1/min] | M [Nm] | η ³⁾ | | | $\cos\phi$ ³⁾ | | | I_A/I_N I_i/I_N | M_A/M_N T_i/T_N | M_k/M_N T_B/T_N | IE-CL |
|----------|--------------|-----------|-----------|-----------|----------|--------------|-----------|----------------------|------|------|--------------------------|------|------|------------------------|------------------------|------------------------|-------|
| | | | | | | | | 4/4 | 3/4 | 2/4 | 4/4 | 3/4 | 2/4 | | | | |
| 230 | Δ | 50 | 2.02 | -/- | 6.80 | 2915 | 6.6 | 86.2 | 86.6 | 85.6 | 0.86 | 0.81 | 0.70 | 9.0 | 2.8 | 4.3 | IE3 |
| 400 | Y | 50 | 2.02 | -/- | 3.90 | 2915 | 6.6 | 86.2 | 86.6 | 85.6 | 0.86 | 0.81 | 0.70 | 9.0 | 2.8 | 4.3 | IE3 |
| 460 | Y | 60 | 2.34 | -/- | 3.90 | 3515 | 6.4 | 86.7 | 86.7 | 85.2 | 0.87 | 0.82 | 0.72 | 9.0 | 2.8 | 4.6 | IE3 |
| 460 | Y | 60 | 2.20 | -/- | 3.65 | 3530 | 6.0 | 86.5 | 86.4 | 84.5 | 0.87 | 0.82 | 0.71 | 9.6 | 3.0 | 4.9 | IE3 |

| | | | | | |
|-----------------|---------|-------|------|--------------|------------------------|
| IM B3 / IM 1001 | FS 90 L | 19 kg | IP55 | IEC/EN 60034 | IEC, DIN, ISO, VDE, EN |
|-----------------|---------|-------|------|--------------|------------------------|

Environmental conditions : -20 °C - +50 °C / 1,000 m

Locked rotor time (hot / cold) : 5.92 s | 8.52 s

These values are calculated. The final rating plate data will be calculated when the order is placed

The efficiency values and efficiency class according to EuP directive are valid for standard power ratings under standard conditions.

Mechanical data

| | | | | |
|--|---------------------------------|---------------------------------|----------------------------|---|
| Sound level (SPL / SWL) at 50Hz 60Hz | 65.0 / 77.0 dB(A) ²⁾ | 69.0 / 81.0 dB(A) ²⁾ | External earthing terminal | No |
| Moment of inertia | 0.0031 kg m ² | | Vibration severity grade | A |
| Bearing DE NDE | 6205 2Z C3 | 6004 2Z C3 | Insulation | 155(F) to 130(B) |
| bearing lifetime | | | Duty type | S1 |
| L _{10mh} F _{Rad, min} for coupling operation 50 60Hz ¹⁾ | 40000 h | 32000 h | Direction of rotation | bidirectional |
| Lubricants | Unirex N3 | | Frame material | aluminum |
| Regreasing device | No | | Coating (paint finish) | Standard paint finish C2 |
| Grease nipple | -/- | | Color, paint shade | RAL7030 |
| Type of bearing | Locating bearing DE | | Motor protection | (B) 1 PTC thermistor - for tripping (2 terminals) |
| Condensate drainage holes | Yes (standard) | | Method of cooling | IC411 - self ventilated, surface cooled |

Terminal box

| | | | |
|--------------------------|-----------|--------------------------------|---------------------|
| Terminal box position | top | Max. cross-sectional area | 1.5 mm ² |
| Material of terminal box | Aluminium | Cable diameter from ... to ... | 9.0 mm - 17.0 mm |
| Type of terminal box | TB1 E00 | Cable entry | 1xM25x1,5-1xM16x1,5 |
| Contact screw thread | M4 | Cable gland | 2 plugs |

Notes:

I_A/I_N = locked rotor current / current nominal
 M_A/M_N = locked rotor torque / torque nominal
 M_k/M_N = break down torque / nominal torque
 1) L10mh according to DIN ISO 281 10/2010
 2) at rated power / at full load
 3) Value is valid only for DOL operation with motor design IC411

| | | | | |
|-------------------------------|---------------------|-------------------------------|-------------|---|
| responsible dep. DI MC LVM | technical reference | created by DT Configurator | approved by | <i>Technical data are subject to change! There may be discrepancies between calculated and rating plate values.</i> |
|-------------------------------|---------------------|-------------------------------|-------------|---|

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|-------------------|--|-----------------------------|-------------|-----------------------------------|
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Special design

| | | | |
|-----|--------------------------------|-----|--|
| L20 | Locating bearing, DE | N06 | Temperature class 155 (F), utilised to 130 (B), cooling medium temperature 50°C, power reduced |
| M10 | Additional rating plate, loose | N30 | Increased air humidity/temperature with 30 to 60 g water per m3 air |

Notes:

| | | | | | | | |
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